

AMENDMENTS

Please amend the claims as follows:

1. (currently amended) In an electrically conductive acoustic matching layer having top and bottom surfaces, each of the top and bottom surfaces substantially in an azimuth and elevation plane ~~when used~~ on a sonic transducer, an improvement comprising:
 - a conductor aligned relative to the top and bottom surfaces at least partly within the matching layer; and
 - a metal layer on each of the top and bottom surfaces.
2. (original) The improvement of Claim 1 wherein the conductor is aligned perpendicular to the top and bottom surfaces.
3. (currently amended) In an electrically conductive acoustic matching layer having top and bottom surfaces, each of the top and bottom surfaces substantially in an azimuth and elevation plane ~~when used~~ on a sonic transducer, an improvement comprising:
 - a conductor aligned relative to the top and bottom surfaces at least partly within the matching layer;
 - wherein the matching layer corresponds to an element or sub-element of the transducer, the conductor and at least one additional conductor aligned between the top and bottom surfaces within the element or sub-element.
4. (original) The improvement of Claim 1 wherein the matching layer corresponds to an element of the transducer, the conductor positioned closer to an edge of the element than a center of the element along the elevation and azimuth plane of the bottom surface.
5. (currently amended) In an electrically conductive acoustic matching layer having top and bottom surfaces, each of the top and bottom surfaces substantially in an azimuth and elevation plane ~~when used~~ on a sonic transducer, an improvement comprising:
 - a conductor aligned relative to the top and bottom surfaces at least partly within the matching layer;

wherein the matching layer comprises castable material

6. (original) The improvement of Claim 5 wherein the castable material comprises a polymer.
7. (currently amended) In an electrically conductive acoustic matching layer having top and bottom surfaces, each of the top and bottom surfaces substantially in an azimuth and elevation plane ~~when used~~ on a sonic transducer, an improvement comprising:
 - a conductor aligned relative to the top and bottom surfaces at least partly within the matching layer;
 - wherein the conductor comprises a conductor material in a via extending from the top surface to the bottom surface.
8. (original) The improvement of Claim 7 wherein the conductor material is a metal plating.
9. (currently amended) In an electrically conductive acoustic matching layer having top and bottom surfaces, each of the top and bottom surfaces substantially in an azimuth and elevation plane ~~when used~~ on a sonic transducer, an improvement comprising:
 - a conductor aligned relative to the top and bottom surfaces at least partly within the matching layer;
 - wherein the conductor comprises conductive film extending from the top surface to the bottom surface at least partly within the layer.
10. (previously presented) The improvement of Claim 9 wherein the conductive film comprises sputtered conductive material.
11. (original) The improvement of Claim 9 wherein the conductor comprises a plurality of enclosed shapes in cross section viewed perpendicular to the azimuth and elevation plane of the top surface.

12. (original) The improvement of Claim 9 wherein the matching layer comprises a solid matching layer material, the conductor positioned between separate volumes of the solid matching layer material.

13. (previously presented) In an electrically conductive acoustic matching layer having top and bottom surfaces, each of the top and bottom surfaces substantially in an azimuth and elevation plane when used on a sonic transducer, an improvement comprising:

a conductor aligned relative to the top and bottom surfaces at least partly within the matching layer;

wherein the conductor comprises magnetic particles aligned such that the longest dimension of the magnetic particles is more along a dimension perpendicular than parallel to the top and bottom surfaces.

14. (original) The improvement of Claim 13 wherein the magnetic particles comprise a soft magnetic powder.

15-31. (cancelled)

32. (previously presented) The improvement of Claim 1 wherein the matching layer is on a first side of the transducer for placement between the transducer and a lens or patient.

33. (previously presented) The improvement of Claim 3 wherein the matching layer is on a first side of the transducer for placement between the transducer and a lens or patient.

34. (previously presented) The improvement of Claim 5 wherein the matching layer is on a first side of the transducer for placement between the transducer and a lens or patient.

35. (previously presented) The improvement of Claim 7 wherein the matching layer is on a first side of the transducer for placement between the transducer and a lens or patient.

36. (previously presented) The improvement of Claim 9 wherein the matching layer is on a first side of the transducer for placement between the transducer and a lens or patient.

37. (previously presented) The improvement of Claim 1 wherein the matching layer and an additional conductive matching layer are on a same side of the transducer.